

**Practice**Student Edition  
Pages 514-521

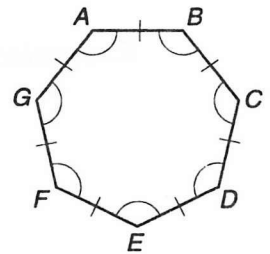
HW. Mod 23

**Polygons****State the number of sides for each convex polygon.**

- |                  |            |            |
|------------------|------------|------------|
| 1. quadrilateral | 2. octagon | 3. 83-gon  |
| 4. heptagon      | 5. decagon | 6. hexagon |

**Use polygon ABCDEFG to answer each question.**

7. Name the vertices of the polygon.
8. Name the angles of the polygon.
9. Name the sides of the polygon.
10. Is the polygon convex or concave.
11. Name the polygon according to the number of sides it has.
12. Is the polygon regular? Explain.

**Find the sum of the measures of the interior angles of each convex polygon.**

- |              |             |            |
|--------------|-------------|------------|
| 13. heptagon | 14. octagon | 15. 13-gon |
|--------------|-------------|------------|

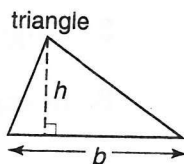
**The number of sides of a regular polygon is given. Find the measure of an interior and an exterior angle of the polygon.**

- |       |       |        |
|-------|-------|--------|
| 16. 5 | 17. 9 | 18. 10 |
|-------|-------|--------|

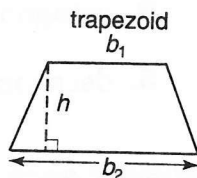
## Study Guide

Student Edition  
Pages 535-541*H.W. Mod 24*  
**Area of Triangles, Rhombi, and Trapezoids**

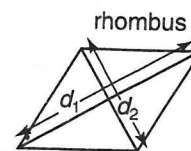
Formulas for the areas of triangles, trapezoids, and rhombi can be obtained from the formula for the area of a parallelogram.



$$A = \frac{1}{2}bh$$



$$A = \frac{1}{2}h(b_1 + b_2)$$



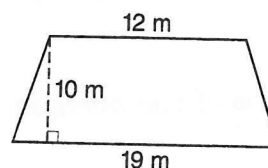
$$A = \frac{1}{2}d_1d_2$$

**Example:** Find the area of the trapezoid.

$$A = \frac{1}{2}h(b_1 + b_2)$$

$$A = \frac{1}{2}(10)(12 + 19)$$

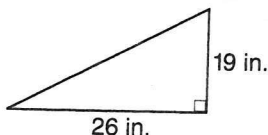
$$A = 155$$



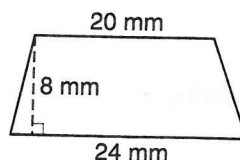
The area is 155 square meters

**Find the area of each figure.**

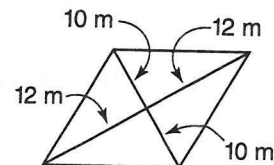
1.



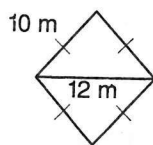
2.



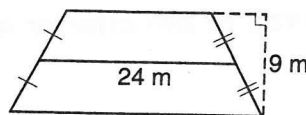
3.



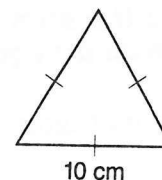
4.



5.



6.



7. The area of a triangle is 150 square inches. If the height is 20 inches, find the length of the base.

8. A rhombus has a perimeter of 100 meters and a diagonal 30 meters long. Find the area of the rhombus.